



National Transportation Safety Board Aviation Accident Final Report

Location:	HOPE, AK	Accident Number:	ANC97LA065
Date & Time:	05/01/1997, 1201 AKD	Registration:	N14C
Aircraft:	Cessna U206F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor, 2 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The pilot reported he was starting a descent to his destination airport when the engine began to lose power. He said he was unable to restart the engine, and made a forced landing into trees. The pilot related he had been flying the airplane with the left fuel tank selected, and he didn't recall if he switched to the right tank during the emergency descent. A passenger seated in the right front seat stated the left fuel gauge was indicating empty, and that the right tank fuel gauge was indicating full. He said the fuel selector was on the left tank, and when he told the pilot he should switch fuel tanks, the pilot reportedly told him to 'relax.' The passenger stated that the pilot did not switch tanks. Postaccident inspection disclosed the left fuel tank contained an unusable quantity of fuel, and the right tank was full. The airplane's engine was removed from the airplane, as well as the electric fuel boost pump. The engine was started and ran on a test stand without any observed mechanical anomalies. The fuel pump was also tested and found functional.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a loss of engine power resulting from fuel starvation due to the pilot's improper positioning of the fuel selector, and the pilot's failure to identify and correct the deficiency during the ensuing emergency descent.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: DESCENT

Findings

1. (C) FLUID,FUEL - STARVATION
2. (C) FUEL TANK SELECTOR POSITION - IMPROPER - PILOT IN COMMAND
3. (C) FUEL MANAGEMENT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

4. OBJECT - TREE(S)

Factual Information

On May 1, 1997, about 1201 Alaska daylight time, a wheel equipped Cessna U206F airplane, N14C, operated by Jay Hawk Air, of Anchorage, Alaska, under 14 CFR Part 135 as an on-demand air taxi flight, sustained substantial damage following a loss of engine power and subsequent forced landing to an off airport site located about 17 miles southwest of Hope, Alaska. The commercial certificated pilot and one of the three passengers aboard reported minor injuries. The remaining two passengers were not injured. The flight was returning to Merrill Field, Anchorage, from Montague Island, Alaska. The flight departed Montague Island about 1120.

In his written report to the NTSB, the pilot related he was just beginning a cruise descent from 5,000 feet msl, when the engine "cut out" for one or two seconds. He said he decided to enrich the mixture, because he thought the engine might be running lean because of the descent. About a minute later, the engine "...cut out again and then seemed to surge in and out. At this point I commenced with emergency procedures. I pitched for best glide speed and trimmed the plane. Then I began to look for the best choice of airfields. At this point, however, I was still not sure if the engine had stopped completely." The pilot's statement notes he recalls reaching down to switch the fuel tanks, bringing the mixture to full rich, switching the magnetos, and activating the fuel boost pump. The engine would not restart, but the propeller kept windmilling all the way to the ground.

The pilot reported he was attempting to reach an abandoned gasoline airstrip (North Gasline), but was unable to reach the airstrip, and made a forced landing into spruce trees. Prior to impact, he said he switched the fuel selector to the "OFF" position, and instructed the passengers to crack their doors open.

During a telephone conversation with the NTSB investigator-in-charge (IIC) on May 15, the pilot related essentially the same information as in his written statement. The IIC asked him about his fuel management techniques, and the pilot replied he had been flying the airplane all of the flight with the fuel selector on the left tank. He was asked if he remembered switching the fuel tank selector to the right tank following the loss of engine power. He said he recalled reaching down to move the selector, but doesn't actually remember moving it.

The NTSB IIC interviewed the right front seat passenger, Ralph S. Johnson, Yakutat, Alaska, via telephone on May 15. Mr. Johnson was asked if he was familiar with a Cessna 206. He said he was, and that he "flew the bush" quite a bit in Cessna airplanes, and always liked to sit up front when he could. He was asked if he was familiar with where the fuel gauges, the fuel selector, and fuel boost pump switches were located. He said he was, and then accurately described their locations.

Mr. Johnson was asked to recount the events of the flight. He said the flight was uneventful until the engine started surging as they begin a descent near Hope. He said he recalls looking at the gas gauges, and seeing the left tank was reading empty. He said the right tank indicated full. He remembered the pilot working the boost pump switch. He said he told the pilot, "Switch your tanks, man!", and that the pilot responded by saying words to the effect, "just relax." He said the fuel selector was on the left tank, and that the pilot did not switch to the right tank.

Postaccident inspection of the accident airplane's fuel tanks disclosed a full right tank, and

residual fuel, estimated at less than one gallon, in the left tank.

The engine was removed from the airplane and inspected. It displayed no obvious signs of malfunction. The engine was placed on a test stand at Sea Air, Inc., on May 30. The engine started and ran without observed malfunction.

The electric boost pump was removed from the airplane and tested. It performed within the factory specified parameters.

No parts of the airplane were retained by the NTSB.

Parties to the investigation were Jay Hawk Air, and the FAA.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	23, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	05/23/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	800 hours (Total, all aircraft), 350 hours (Total, this make and model), 700 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N14C
Model/Series:	U206F U206F	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	U20602803
Landing Gear Type:	Tricycle	Seats:	6
Date/Type of Last Inspection:	04/12/1997, 100 Hour	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	37 Hours	Engines:	1 Reciprocating
Airframe Total Time:	9475 Hours	Engine Manufacturer:	Continental
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	IO-520-F
Registered Owner:	JAY HAWK AIR	Rated Power:	300 hp
Operator:	JAY HAWK AIR	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	ANC, 144 ft msl	Distance from Accident Site:	23 Nautical Miles
Observation Time:	1205 ADT	Direction from Accident Site:	335°
Lowest Cloud Condition:	Scattered / 6000 ft agl	Visibility	70 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	11° C / -4° C
Precipitation and Obscuration:			
Departure Point:	MONTAGUE ISLAND, AK	Type of Flight Plan Filed:	Company VFR
Destination:	ANCHORAGE, AK (MRI)	Type of Clearance:	None
Departure Time:	1120 ADT	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor, 2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor, 2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	JAMES D LABELLE	Report Date:	11/10/1998
Additional Participating Persons:	DAVID CAMPBELL (FAA); ANCHORAGE, AK TIM J KARLOVICH; ANCHORAGE, AK		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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